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Abstract

Summary of your system/tool, targeted purpose, and main features.

TECHNICAL DESIGN DOCUMENT

Your Audio System/Tool Name

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# Glossary

*Abbreviation followed by the wording.*

e.g. CPU – Computer Processing Unit

# Problem

A description of the problem you are addressing. This should include any relevant existing work in the area. e.g. X (reference) and Y (reference) are currently existing tools/systems that do Z, but they are limited in terms of…

Idea 1:

Character movement sounds are some of, if not the most important sounds that make up the soundscape of a game. These sounds are the sounds that are going to be heard most often by the player, so they need to pleasant to listen to and accurate to the context of the situation (e.g. change dependent on what clothing the player character/other characters are wearing, carrying etc.).

To manually create sound effects for all the possible movement sounds would take a long time, likely meaning that the fidelity and variety of said sounds would need to be sacrificed. This is the problem I would like to solve through creating a system to generate synthetic movement sounds.

Idea 2:

Creating a system that can directly translate character movement intro musical tones/melodies so that the game’s soundscape responds to and represents the motion of the player character. The fluidity and complexity of the music produced can increase and decrease depending on the fluidity of the character movement, meaning that the better the player gets at the game the more fluid the music becomes. This idea was inspired by old Charlie Chaplin silent films that use music in response to motion to establish tone.

<https://ieeexplore.ieee.org/document/8683009>

<https://ieeexplore.ieee.org/document/6822534>

<https://ieeexplore.ieee.org/document/5759644>

<https://ieeexplore.ieee.org/document/7352357>

<https://ieeexplore.ieee.org/document/9053376>

# Introduction

A description of the system or tool you are proposing.

# List of Features

What features must the system/tool have?

# High Level Diagrams (if any / delete as appropriate)

Any documentation to support the development process for the system. UML, etc.

# Engine Requirements

Engine needed and minimum version (if/as appropriate). (UE5.2.1)

# Audio and Visual Requirements

Headphones? Speakers? Needs a screen or a projector? Or an audio only game?

# User Setup Guide

How to setup the tool/system, including how to setup the game engine to accommodate the tool/system process (if appropriate). All sections are a user setup guide and how to use them.

# UI of the System/Tool

The UI of the system/tool.

# External Library Dependencies

List all of any libraries needed.

# Preparatory and Developmental Work

Time and date of post/s.

Link/s to post/s.

Include:

* Have a clearly descriptive title
* Visual inspiration
* Technical inspiration
* UI inspiration
* Output inspiration
* Anything else you feel is beneficial to the way the system should look and its outputs.
* Images
* Videos

# Prototypes

Time/s and date/s of post.

Link/s to post/s.

Include:

* Have the title “Prototype 1”, “Prototype 2”, etc.
* Summary of the prototype
* Identify core system/tool output/functionality achieved
* Show the output at this stage.
* Images
* Video(s)
* Audio

# Polished System/Tool

Time and date of post.

Link to post.

(Submit zip file separately to DA Upload)

**On the post:**

It is ideal to have this as a single but very detailed post on the forum.

Include:

* Have the title “Polished System” or “Polished Tool”
* Show system/tool output to a polished level.
* Show variations of system/tool output to a polished level (i.e. show the range of things it can produce or do).
* Show the system requirements for your system/tool.
* State the usage of the system and how it fits into the development cycle.
* Images
* Videos
* Audio
* Reflection/evaluation ()

# Add more headers if/as appropriate. Make sure it is clear how to use your system or tool.

# Bibliography

Harvard Referencing examples:

**Website**:

**Bibliography format:**

BBC News (2008) Factory Gloom worst since 1980 [Online]. Available from: http://news.bbc.co.uk/1/hi/business/7681569.stm [Accessed: 21 October 2008]

**In-text example:**

(BBC News 2008)  
…as reported on BBC News (2008)

**Book (1 Author)**:

**Bibliography format:**

Neville, C. (2007). The Complete Guide to Referencing and Avoiding Plagiarism. Maidenhead: Open University Press

**In-text example:**

(Neville, 2007)  
Neville (2007) commented that…  
“Direct quotations are placed in double quotations marks” (Author’s Surname, Year of Publication, p. – followed by page number – in brackets)

**Journal**:

**Bibliography format:**

Trefts, K. & Blaksee, S. (2000). Did you hear the one about Boolean operators? Incorporating comedy into library instruction. Reference Services Review. 28 (4) p. 369-378.

**In-text example:**

(Trefts & Blaksee 2000)

This supports Trefts & Blaksee’s (2000) evidence that……  
“direct quotations are placed in double quotations marks” (Author’s Surname, Year of Publication, p. – followed by page number – in brackets)

# Appendices

Any additional supporting documentation can be added to the appendix. This can relate to any section of the report.

It also helps if the appendix has its own content page and naming conventions.

## Appendix 1: Title

## Appendix 2: Title